

Role of the Flight Surgeon

Introduction:

Numerous US Army Authorities have mandated the roles of the Flight Surgeon and requirements of the Aviation Medicine Program. These roles and requirements are published within multiple respective medical, aviation, safety, and personnel regulations. They have evolved from a necessity to protect the personnel, equipment, time, labor, and financial resources that go into building our US Army Aviation forces.

The Flight Surgeon roles are categorically divided into clinical and non-clinical duties. On closer examination the roles are really a continuum of interwoven responsibilities. In addition to duties similar to most other clinicians, there are non-typical duties that make the 61N Flight Surgeon unique from other medical military occupational specialty professions. Sound advisement hinges on non-clinical participation with aircrew on the flight line. This helps us understand their job requirements and stresses in their environment, whether on the ground or in the air. These non-clinical duties encompass, but are not limited to, participation in aerial flight, aeromedical training, accident prevention, safety promotion, and operational exercises. By performing these duties a comprehensive preventive, occupational, and environmental medicine program is built which is necessary for making medical recommendations to the commander and the basis for a successful aviation medicine program.

As a special staff officer to your commander, you might feel isolated from your peers in the Army medical department. From a global perspective you are not alone in building a successful aviation medical program. Several medical organizations and aviation specific support personnel positions, all the way through the level of the office of the Surgeon General, have been established and mandated by regulation, to provide support to the Flight Surgeon and aviation community. However, maximizing your local success will be dependent upon your thorough understanding of the roles, relationships, and responsibilities among these organizations.

This section of your training will cover many regulations that govern the Aviation Medicine program and the roles of the Flight Surgeon. However, the focus will be on AR 385-10 and AR 40-3, Chapter 3. These are the primary US Army regulations which dictate the pertinent clinical and non-clinical aeromedical roles of the Flight Surgeon and the hierarchical support structure of the Aviation Medicine program. This will be followed by brief descriptions of other members of the aeromedical team. If you do not recall or understand any of the aeromedical terminology used in the following lessons, please refer to the glossary of a more detailed discussion.

Role of the Flight Surgeon

Introduction:

You will be able to:

- Cite the regulatory references that describe the roles of the flight surgeon and the Aviation Medicine Program.
- Identify the support hierarchy of the Aviation Medicine Program
- List the members of the aeromedical team

You will be able to discuss:

- The clinical responsibilities of the Flight Surgeon
- The non-clinical responsibilities of the Flight Surgeon

Flight Surgeon General Duties

- Serve as the medical liaison within the aviation command
- Implement the Aviation Medicine Program

Flight Surgeon Clinical Duties

- Provide routine primary care for ALL aviation and support personnel (and for aviation family members on a space available basis).
- Review care provided by other health care providers on aviation and support personnel will be conducted to evaluate the impact on the flight status of that individual.
- Conduct Flight Duty Medical Examinations (FDMEs):
 - Review FDMEs performed by other providers
 - Perform aeromedical consultation and in-flight evaluations

Flight Surgeon Administrative Duties

- Provide 24 hour on-call service for aeromedical emergencies and evacuation
- Establish procedures for automatically grounding crewmembers when seen in other clinics.
- Ensure timely evaluation of aviation personnel who are medically disqualified, temporarily disqualified following an aircraft accident or newly assigned to the unit.
- Frequently monitor the physical and mental health of aviation personnel
- Participate as a Flying Evaluation Board (FEB) member to determine the suitability of personnel to perform their aviation duties
- Organize and report on special medical consultations when human factors or medical laboratory findings are involved.
- Maintain Health records (HREC) on aviation personnel, including non-operational aviators.
- Issue DA Form 4186, *Medical Recommendation for Flying Duty*, for the unit commander's approval.

Flight Surgeon Safety Duties

- Ensure timely evaluation of aviation personnel who are medically disqualified, temporarily disqualified following an aircraft accident or newly assigned to the unit.
- Assist and advise the command on the hearing and occupational vision program
- Advise the commander on crew endurance, crewmember interactions and crewmember interface with equipment and the environment
- Make recommendations to the Commander, USASC, for improvement of human factors compatibility, crashworthiness, aviation life-support equipment and survival features of aircraft.
- Attend unit social functions. Alcohol abuse, self-medication problems and other distracting personal problems can be more readily identified to help prevent potential accidents.
- Brief at unit level training safety meetings
- Participate in aircraft emergency exercises
- Attend and actively participate in aviation safety meetings to educate aviation crewmembers on the aeromedical aspects of flight
- Take an active part in formulating and regularly updating the medical portion of the pre-accident plan
- In the event of an aviation mishap, the Flight Surgeon would be expected to manage casualties, assist at the mishap site, obtain any necessary lab specimens, and serve as an Accident Investigation Board member
- Medically clear crewmembers for further flight duty after aircraft accidents. Monitor the ALSE program
- Monitor survival and physiologic training
- Advise the command of potential safety problems
- Promote the health and safety of aviation personnel by instituting a health education program
- Monitoring the conditions and hazards present in the work environment
- Assist the unit with annual occupational health and safety screening for non-crewmember personnel (e.g. fuel handlers)

Flight Surgeon Operation and Training Duties

- Ensure the command considers preventive and occupational aspects of all plans, operations, training and security missions
- Participate in flight line operations:
 - Conduct aeromedical occupational inspections
 - Monitor physical and psychological stresses
 - Fly in each type of aircraft assigned to supported units in all flight environments
 - Participate in unit field training exercises and unit day-to-day activities
 - Make frequent flight line visits, and fly with every crewmember at least once per year to observe the flying ability and characteristics of each assigned aviator.
- Readiness and mobility support:
 - Assist in medical staff planning activities associated with tactical aviation operations
 - Review aviation operation plans (OPLANS)
 - Advise the command on physiological and psychological factors affecting crew endurance
 - Recommend policies and procedures for NBC operations
- Conduct crewmember aeromedical training:
 - Assist the commander in developing an aeromedical training program IAW TC 3-04.93.
- Assist air ambulance operations:
 - Serve as a medical technical advisor for local air ambulance operations and participate in evacuation missions as appropriate.

Regulations

What regulations specifically govern Aviation Medicine Programs?

Number	Title	Focus	Summary
AR 385-10	The Army Safety Program	Aviation accident prevention. Chapter 4 addresses the role of the Flight Surgeon in accident investigation	The Flight Surgeon will assist and advise the command in all aviation medicine matters. Note: In some instances, like remote areas or installations with very few aviation assets, a Flight Surgeon won't be assigned or readily available. Support for these aviation personnel will be provided by the servicing MEDDAC for that area. A flight surgeon must be on an accident investigation board if the accident involves injuries or problems with personal protective equipment, egress from the aircraft, MEDEVAC, rescue or survival
AR 40-3	Medical, Dental and Veterinary Care	Chapter 3 of this regulation specifically addresses the aviation medicine program and medical care of aviation personnel	The unit Flight Surgeon is NOT solely responsible for the aviation medicine program.
AR 40-501	Standards of Medical Fitness	Chapter 6 addresses fitness for flight duty	The flight surgeon is responsible for conducting flight duty medical exams in order to determine aircrew's fitness for flight duty, as well as providing medical care to the aviation community
AR 95-1	Flight Regulations	Chapter 8 addresses Aviation Life Support System	Flight Surgeons are responsible for medical aspects of aircrew training and monitoring the fit and use of Aviation Life Support Equipment
AR 600-105	Aviation Service of Rated Army Officers	Qualifying and disqualifying aviation officers	The flight surgeon is responsible for preliminary determinations of aeromedical fitness, performing aeromedical consultations, and advising flight evaluation review boards
AR 616-110	Selection, Training, Utilization and Career Guidance for Army Medical Corps Officers as Flight Surgeons	The role of the Flight Surgeon	Specifies the training and mission of flight surgeons
AR 40-8	Temporary Flight Restrictions Due to Exogenous Factors	Substances and procedures that adversely affect flight performance	All medical treatment of aircrew members must be supervised by a flight surgeon, who is aware of the exogenous factors affecting flying and who will keep the command informed
AR 40-21	Medical Aspects of Army Aircraft Accident Investigation	The role of the Flight Surgeon in accident investigation	Flight surgeons are responsible for investigating the history of individuals involved in the accident, injuries involved in the accident, and the role of aircraft design, life support and personal protective equipment in the accident.
AR 40-68	Clinical Quality Management	Addresses the role of Aeromedical	APAs will perform aviation medical duties under the supervision of a flight surgeon

Aeromedical Hierarchy

The unit Flight Surgeon is not solely responsible for the aviation medicine program. Several hierarchical levels of support and responsibility for the aviation medicine program are specified in AR 40-3.

The Surgeon General

- Responsible for development, fiscal planning, and oversight of Army policies and programs for the Aviation Medicine Program.

All Major Command (MACOM, e.g. FORSCOM) commanders

- Enforce the regulatory aspects within their commands (e.g. Aviation Resource Management Surveys, ARMS).

The Aviation Medicine Consultant to TSG

- Assists in policy formulation and technical supervision of the aviation medicine program

The Dean, US Army School of Aviation Medicine

- Assists the Aviation Medicine Consultant to TSG in all aspects of aeromedical education and training, including developing qualification courses and conducting the Army Aerospace Medicine Residency Training Program. Additionally, the Dean is responsible for supervising the aeromedical portion of the ARMS.

US Army Aeromedical Activity (USAAMA)

- Provides worldwide support of Army Aviation Medicine Programs through consultations, supportive services and training in the areas of aviation and military occupational disease prevention, surveillance and evaluation.
- Reviews and recommends dispositions of flying duty medical examinations and medical waiver requests for continued flying duty according to AR 40-501.
- Maintains the Aviation Epidemiology Data Register (AEDR) to support research and clinical studies for aircrew medical standards and policy.

Command Surgeon, US Army (Safety) Combat Readiness Center (USASCRC)

- Investigates human factors in aviation safety, aircraft design and aviation mishaps.
- Assist in Class A and select Class B accident investigations (ground and air)
- Write safety policies for the Army

The Commander, US Army Aeromedical Research Laboratory (USAARL)

- Conducts research on the effects of exogenous aeromedical factors in the aviation operational environment equipment and developing aviation life support equipment.
- Administers and executes the Aviation Life Support Retrieval Program (ALSERP).

Regional Medical Command (RMC) commanders

- Ensures implementation of the Aviation Medicine Program.
- Appoints a residency-trained aerospace medicine specialist, or a senior experienced flight surgeon assigned to that region, as the Chief, Aviation Medicine to oversee the RMC Aviation Medicine Program.

The installation medical authority (medical treatment facility commander)

- Establishes, supervises, administers and supports the Aviation Medicine Program
- Appoints a Chief, Aviation Medicine to oversee the installation Aviation Medicine Program.

The unit-level Flight Surgeon

- Establishes, supervises, and administers the unit Aviation Medicine Program.
- Most of the actual "hands on" aviation medical duties are performed at this level.
- This is "where the rubber meets the road."

The Aeromedical Team

Specialist in Aerospace Medicine (SAM)

- A "professional flight surgeon"
- A physician with specialty level training in aerospace medicine (3 year residency)
- Provides depth of expertise in managing complex aeromedical dispositions, which is critical given our aging active duty, reserve component, and civilian aviators
- Provides leadership in the specialty
- Usually assigned to Brigade level or higher

Resident in Aerospace Medicine (RAM)

A physician undergoing training in the fields of:

- Aerospace physiology
- Aircrew selection with application of aeromedical research
- Human Factors/Ergonomics
- Health maintenance of aircrew
- Flying safety, aircraft accident investigations
- Space medicine, radiation health
- Hyperbaric medicine
- Travel medicine

Aeromedical Physician Assistant (APA,65DM3)

- Practices under supervision of a flight surgeon
- Plan, organize, perform, and supervise level I and II troop medical care
- Temporarily ground aviators
- Perform Flying Duty Medical Examinations
- Preventive Medicine / Health Promotion
- Teach and train enlisted medics
- Aircraft mishap investigation
- Unit Readiness
- Perform as medical platoon leader or OIC in designated units
- Advisor to the Commander

Aviation Medicine Nurse Practitioner (AMNP)

- Practices under supervision of a flight surgeon
- Plan, organize, perform, and supervise level II troop medical care
- Temporarily ground aviators
- Perform Flying Duty Medical Examinations
- Preventive Medicine / Health Promotion
- Works primarily in the clinical environment

Flight medic (68W-F)

- The primary agent for en route patient care
- Non-rated Crewmember
- Search & Rescue (SAR)
- Maintain the medical equipment set air ambulance (MESAA)

Aeromedical Record clerk

- File, route and transmit FMDEs and other medical forms.

Tips for a successful Aviation Medicine Program:

- Know your patients, unit and mission
- Meet your flight minimums
- Educate MEDDAC and DENTAC staff on grounding policies
- Notify the commander immediately when grounding aviators
- Have your own personal reference library
- Review previous inspections
- Conduct a self-assessment pre-ARMs inspection using a checklist - http://usasam.amedd.army.mil/_arms/checklist/FORSCOM_Checklist.rtf
- Keep a memorandum or flow sheet for non-clinical activities you must provide as a Flight Surgeon.
- If you don't know, ask! (The commander, other flight surgeons)